



NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 6, No. 15

NUCLEAR DIVISION NEWS

August 7, 1975

Four-plant telephone directory consolidated for easy reference

A new telephone directory has been issued for the four Nuclear Division installations. It replaces the old Atomic Energy Commission telephone guide.

In addition to listing Energy Research and Development Administration offices and personnel, the new directory will include listings from the four sites in three different sections. The first section includes emergency listings for all sites with general emergency information showing phone numbers to be reached in any emergency.

Another section deals with function and service listings, showing upper organizational units by titles, and major service units (this section on yellow paper). Installation locations are indicated by the letters K for the Oak Ridge Gaseous Diffusion Plant, L for the Laboratory, Y for the Y-

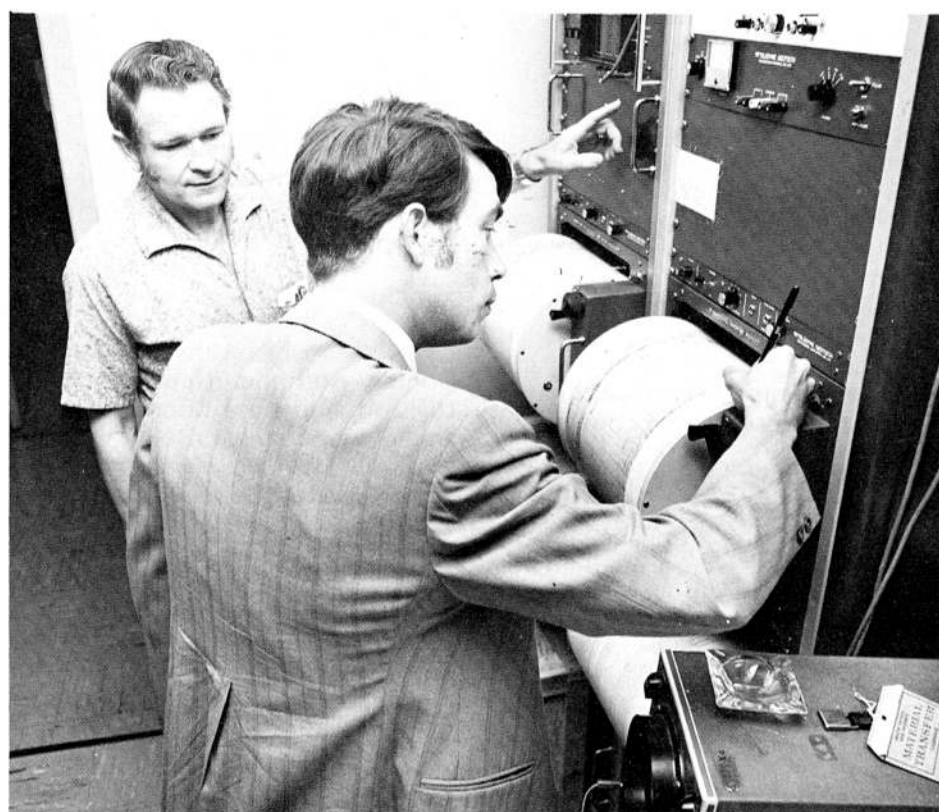
12 Plant, and P for the Paducah Gaseous Diffusion Plant.

The final section has alphabetical listings of Division employees by name, with locations indicated in the same manner as above.

It has been requested that all the old AEC directories be returned to the mail departments of each plant for destruction.

It is recognized that a major revision of this type will require corrections and revisions.

Corrections should be reported to the following personnel: ORGDP: Arnold Toney; Laboratory, Bert Catron; Y-12, Andy Anderson; Paducah, Dave Barclay; Technical, Ruth Lassiter; Engineering, Nancy Vandergriff; Computer Sciences, Dave Ghormley; Operations Analysis, Fay Duncan; and General Staff, Marigrace Kirstowsky.



INSPECTING SEISMOGRAMS — William McClain (foreground) and Tom Hodge inspect the four drum charts that record earth motions at the new Laboratory seismograph station.

Radioisotope produced at ORNL for astronauts' medical tests

A post-flight test on the three U.S. astronauts following the Apollo-Soyuz (U.S.-U.S.S.R.) joint space mission involved a radioisotope produced at Oak Ridge National Laboratory and provided recently by special courier to the Apollo recovery ship in the Pacific.

The radioisotopes department in the Laboratory's Operations Division supplied four millicuries of potassium-43, used in tests to measure the effects of the space environment on the exchangeable potassium in the astronauts' bodies. The radioisotope was produced in the Oak Ridge Research Reactor (ORR).

Standard procedure

The potassium test is a standard nuclear medicine procedure involving the introduction of a measured amount of the radioisotope into the body, where over a two-day period it reaches equilibrium with the normal body potassium.

According to J. Kenneth Poggenburg, of the biomedical radioisotopes group at the Laboratory, a courier from Baylor College of Medicine in Houston, Tex., arrived in Oak Ridge on July 21 to accompany the radioisotope on its flight to Honolulu. It was shipped in the standard, non-returnable, lead-shielded package used by the Laboratory for radioisotope shipments.

The time factor was crucial because of the limited half-life of the radioisotope. Potassium-43 has a half-life of 22.5 hours. This means that half of it disappears every 22.5 hours.

For the Apollo astronauts, the radioisotopes had to be flown to Honolulu, delivered by helicopter to the recovery ship, injected into the astronauts, samples taken and returned to Houston for measurement at Baylor College of Medicine.

Staff involved

In addition to Poggenburg, Laboratory staff members involved in making up the target, irradiating and recovering it from the reactor, and separating and packaging the radioisotope were Thomas A. Butler and Bobby L. Byrum.

Use of potassium-43 in the Apollo tests was unique. It has previously been used for radioisotope imaging in heart disease studies. Another potassium radioisotope, potassium-42, is normally used to calculate the body's exchangeable potassium, but was not suitable in this particular case because of its shorter half-life (only 12.4 hours).

LAB NAME CHANGE

It's Oak Ridge National Laboratory again! In both the House of Representatives and the U. S. Senate, bills have been passed to restore the name of the Laboratory.

Two earthquakes already detected by Lab's new seismograph station

Within days of its installation, a new seismograph station at Oak Ridge National Laboratory detected an earthquake whose epicenter was only about 10 miles away. Within another three weeks it registered a quake in the Atlantic almost as powerful as the one that leveled San Francisco in 1906.

Activation of the station reinstates a capability of the Laboratory from 1967 to 1973. About three-fourths of the equipment in the station is new, according to William C. McClain, head of the Geologic Studies Program, who put together the original seismograph out of surplus parts.

Easily read

The station's amplifying, recording, and timekeeping equipment is located in an office building adjacent to the High Flux Isotope Reactor. Its ground-motion detectors (seismometers) are placed near Melton Hill Lake, about 200 feet from a microwave relay tower.

McClain explained that a seismograph detects earth movements and records them on a chart. A needle pens an ink line, oscillating back and forth as it moves slowly across a paper chart, which is called a seismogram. The needle follows the motion of the earth, but its back-and-forth movements are magnified up to 50,000 times by the machine's amplifier.

Earth movements far too weak to be felt by the human senses are recorded and can be read easily on a seismogram.

Motions recorded

The new station records four drum charts simultaneously. Each measures a different mode of earth motion. One recorder measures vertical movements only, with a gain (magnification) of about 1,000 and is tuned to measure very slow motions of the earth — those that require 10 to 20 seconds for each back-and-forth motion cycle to occur.

The other three recorders chart the complete earth motion with a gain of 50,000 and are tuned to record short-period motions, those occurring at a rate of from one-half to five seconds per cycle. One of these measures vertical motion; one measures horizontal, east-west movement; and the last provides a horizontal, north-south seismogram.

When a possible earthquake is reported, McClain and his assistant, Tom Hodge, follow several procedures. They check the seismograms to determine the exact times when the first and subsequent phases of the quake were recorded.

Different kinds of shock

Because an earthquake generates several different kinds of shock waves

(Continued on page 8)

159 at Laboratory get 1974-75 in-house training certificates

"Graduation" ceremonies were held in June for 159 employees who completed courses in the 1974-75 in-house training programs offered by Oak Ridge National Laboratory's personnel development and systems department, Employee Relations Division.

Certificates were awarded to members of nearly every Laboratory division for completion of one or more of three types of courses: In-House Development Opportunities for Administrative and Technical Support Personnel, Technical Fundamentals for New Technicians, and Basic Education Improvement.

Names of students receiving certificates are listed below, by division.

The Support Personnel program consists of more than 20 courses in the areas of clerical, technical and communications skills. Coordinated by Paula Gillespie, these courses are open to all weekly salaried employees. Most have been meeting since last fall.

To aid in the coordination of courses, "deans" were appointed this year in the various subject areas. These were Janet Gentry, Neutron Physics Division, dean of clerical skills; and Francis McKinney, Information Division, dean of communications skills. Mr. McKinney, who died in March in a caving accident, was honored posthumously in a letter to his family for his contributions to the program.

New technicians trained

A newcomer to the in-house schedule, and offered as a pilot this year, was the Technical Fundamentals for New Technicians course. Designed to give all new technicians a common background, the course covered material formerly covered by on-the-job training — but not geared to a specific Laboratory division, so that if the technician should change divisions the transition would be easier.

Don Box, Chemical Technology Division, served as dean for the New Technicians course.

George Joseph, coordinator of the new course, said it will be offered again with some changes. Parts of the pilot course will be developed into specialty courses for particular areas.

The course, divided into two groups, graduated 35 new technicians. When offered next year,

Joseph said, it will fall under the Support Personnel program as a regular course offering, the only difference being the method of registration. Unlike the other courses, Technical Fundamentals recruits its students through division offices rather than on a voluntary, sign-up basis.

Basic Education has GED goal

Basic Education Improvement, coordinated by Truman Freeman, is designed for employees with less than a high school education. Its goal is successful completion of the General Educational Development examination (GED), the equivalent of a high school diploma.

The course, which covers standard academic material, is taught at the Laboratory by Oak Ridge Adult Education Program instructors Connie Anthony, Neutron Physics Division, and Rose Robbins. Classes are held in two sessions — 2:30 to 4:30 and 4:30 to 6:30 — for the convenience of shift workers. At the end of the class year, certificates are awarded on the basis of the level of work the student has completed. Work completion equivalent to a high school education is accepted by the Laboratory as a diploma for purposes of job advancement, whether or not the employee has taken the GED.

Registration for in-house training programs will be held again this fall, says B. G. Catron, head of personnel development and systems. At that time, descriptive brochures for the Support Personnel program will be mailed out to weekly salaried Laboratory employees. Employees eligible for the Basic Education Improvement course will be notified of this opportunity through their division offices, and an orientation meeting will be held in late September or October.

IN-HOUSE DEVELOPMENT OPPORTUNITIES FOR ADMINISTRATIVE AND TECHNICAL SUPPORT PERSONNEL

ANALYTICAL CHEMISTRY — Irene Brogden, Charles A. Clark, Carolyn Granger, Anna H. Knaff, Gloria A. Long, Donna M. Watson.

BIOLOGY — Geraldine B. Ellison, Bonita Elmore, Jeane George, Lawrence C. Gipson, Neva Hair, Lynda R. W. Lewis, Sandra Vaughn.

CENTRAL MANAGEMENT OFFICES — Carolyn A. Barnes, Paula Renfro, Brenda Roberts, Jamie Ryon.

CHEMICAL TECHNOLOGY — Phillip Arwood, Christine L. Flanary, Lou Gunnels, Stephen R. Manning, Janet S. Thomas.

COMPUTER SCIENCES — Karen T. Barry, Willie P. Bolton, Becky Eddlemon, Earnest B. Murphy, Maxie L. Stevens.

ENERGY — Margie Adair, Barbara L. Bishop, Patricia Love, Sherry Wright.

ENGINEERING — Evelyn Cobham, Robert K. Francis, Gerald K. Mustin, James E. Wallace Jr. ENVIRONMENTAL SCIENCES — Lois H. Bradley, Paula Cottrell, Evelyn J. Nelson.

FINANCE AND MATERIALS — Mary Combs, Alfred Hendricks, Carl E. Hooks.

HEALTH — Peggy Harris.

HEALTH PHYSICS — Norma Brashier, Alma J. Soard, W. B. Towns.

INFORMATION — Sherry C. Alcorn, Beverly Y. Barber, Wilma Barnard, Helen Braunstein, Clara Cawse, Betty Edwards, Faye Fletcher, John B. Henson III, Carol Hodge, Edward J. Howard, Ernestine R. Kackenmeister, Mary R. Melhorn, Katherine S. Moody, James H. Oggs, Polly Purnell, Carolyn Seaborn, Eugene L. Watkin, Jeanette H. West.

INSPECTION ENGINEERING — George R. Archer, Billy J. Ward.

INSTRUMENTATION AND CONTROLS — J. Larry Borden, Jerry D. Lyons, Milton J. Meacham, Annabelle Snellings, Margaret J. Zedler.

ISOTOPES — Emily C. Baer.

METALS AND CERAMICS — Neil M. Atchley, Bertie F. Byrum, Bruce L. Cox, Billy C. Leslie, L. C. Manley Jr., Raymond A. Padgett Jr., Gregory A. Potter, Kaye F. Russell, James O. Scarbrough, Christopher O. Stevens, Shirley B. Waters, Freddie J. Weaver.

NEUTRON PHYSICS — Ellen N. Berrier.

OPERATIONS — Gene Hicks, Luther P. Pugh.

PHYSICS — R. L. Heese, Mary Ruth McGinnis, Jacqueline T. Miller.

PLANT AND EQUIPMENT — Alice J. Davidson, Peggy Geldmeier, John H. Mitchell, Linda E. Morris.

REACTOR — Emerson H. Guinn, Lilvetta D. Jarnigan, Helen Shersky.

SOLID STATE — Sylvia L. Gilmore, Homer E. Harmon.

THERMONUCLEAR — Lillian G. Bean.

TECHNICAL FUNDAMENTALS FOR NEW TECHNICIANS

ANALYTICAL CHEMISTRY — Nancy J. Ford, Pam Howell, Malcolm E. Peters Jr., Hosie Simmons Jr., Linda J. Suneson, Charles L. Watson, Vilvin L. White and Maurice W. Williams.

CHEMICAL TECHNOLOGY — Phillip C. Arwood, Daniel J. Kington and Stephen R. Manning.

ENVIRONMENTAL SCIENCES — Arnold E. Hunley, Sherry Janzen and Pat Parr.

HEALTH PHYSICS — Marjorie Fish.

METALS AND CERAMICS — Carolyn L. Angel, Kenneth S. Blakely, Wade M. Bradley, Bruce L. Cox, Joe C. Feltner, Charles L. Garrison, Lee Heatherly Jr., Alton G. Mason Jr., Jackie R. Mayotte, Gregory A. Potter, L. T. Ratliff, Kaye F. Russell, Rodger H. Shannon, Christopher O. Stevens, Shirley B. Waters and Freddie J. Weaver.

REACTOR — Phillip W. Childs, Ralph M. Flanders and Debbie Sharp.

SOLID STATE — William E. Evans.

BASIC EDUCATION IMPROVEMENT

BIOLOGY — Renfro Henderson.

OPERATIONS — Herbert C. Booker, Paul D. Browning, Nathan B. Carr, Thelma M. Carter, J. C. Grove, Jessie Inman, Paul L. Jude and Ruby C. Price.

PLANT AND EQUIPMENT — Howard P. Armstrong, Vernon S. Brown, Bobby J. Bruce, George M. Davis, Harold C. Davis, Johnny J. Everhart, Hugh G. Hackler, Garfield Hardin, Austin E. Massengill, D. C. Robbins, Hal Williams, Charles E. Kimblin, Jack L. Wright, Floyd R. Wells and William O. Williams.

RIDES-RIDES-RIDES

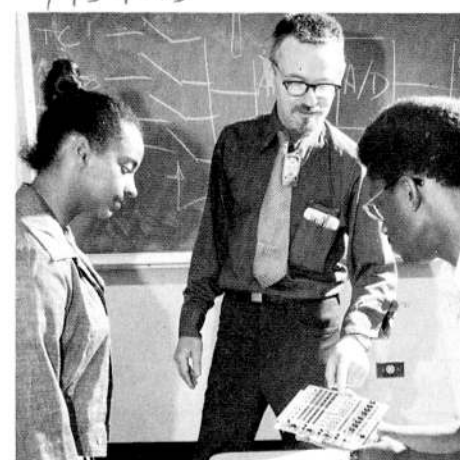
ORDGP

Join or form CAR POOL from Papermill Road area, Knoxville, to Portal 5, straight day. Patty Allen, plant phone 3-3114, home Knoxville 588-2336.

Join or form CAR POOL from Friendsville area to Portal 4. Alternating shifts. Steve Johnson Jr., plant phone 3-9636, home 995-2382.

RIDE or will join CAR POOL from Bearden section, Knoxville, to Portal 5, straight day. Sarah Neal, plant phone 3-3885.

CAR POOL member from Lindell Lane, Oak Ridge, to main portal, straight day. E. T. Stamey, plant phone 3-3156, home phone Oak Ridge 482-5507.



NEW TECHNICIANS LEARN BASICS — Instructor Les Redford, Instrumentation and Controls, explains a high-speed F.E.T. multiplex circuit board to Shirley Waters and Hosie Simmons, students in the Technical Fundamentals for New Technicians course. The class was given as a pilot this year but will be a regular course offering in the future.

Class instructors earn recognition

Instructors for the various in-house training courses were also recognized at the personnel development and systems department's recent ceremonies. Laboratory staff members donated their time to teach entire courses or portions of courses.

Instructors for the Administrative and Technical Support courses were:

Analytical Chemistry, John E. Caton Jr.; Employee Relations, Jane Patterson; Chemical Technology, Stephen R. Manning; Computer Sciences, C. W. Nestor and Dennis Strickler; Engineering, Don Anfinson; Finance and Materials, Ada Misek;

Information, Janice Asher, N. T. Bray, George Griffith and Meredith Hill; Metals and Ceramics, Vernell Moore and Jim Selle; Physics, Anita Barker; Plant and Equipment, Nelson Wilkins.

Technical Fundamentals for New Technicians instructors included:

Central Management Offices — Wimmer J. Leonard, J. R. McGlothlan, and J. Michel; Chemical Technology — Alvin R. Irvine, E. L. Nicholson, and Clyde D. Watson; Computer Sciences — J. T. Thomas; Energy — Sam E. Beall; Health — Newell E. Bolton, J. A. Ealy, and Walter E. Porter;

Health Physics — John A. Auxier, Hal M. Butler, D. M. Davis, Myron F. Fair, Denton C. Gary, Edwin D. Gupton, Donald G. Jacobs, Charles H. Miller, R. E. Millsap, James R. Muir, and W. W. Parkinson; Information — Don Cline and George Griffith;

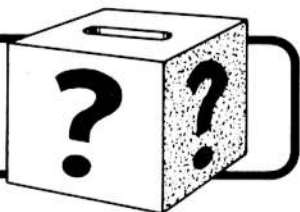
Inspection Engineering — J. R. McGuffey; Instrumentation and Controls — R. V. Adams, Norman C. Bradley, Howard E. Cochran, William R. Hamel, M. B. Herskovitz, R. Miller, and J. Les Redford; Plant and Equipment — Nelson Wilkins; and Reactor — Charles A. Mills.

Join or form CAR POOL from West Town area, Knoxville, to Portal 2, straight day. Sheila Glenn, plant phone 3-3349, home Knoxville 693-1584.



BASIC EDUCATION GRADUATES — Basic Education Improvement students who completed course work this year equivalent to high school diplomas pose with their instructors. From left are Truman H. Freeman, coordinator of the Basic Education Improvement program; Harold C. Davis, Johnny J. Everhart, Howard P. Armstrong, Ruby C. Price, Vernon S. Brown, Rose Robbins, instructor; Hugh C. Hackler, Constance Anthony, instructor; George M. Davis, Austin E. Massengill, and B. J. Catron, head of the personnel development and systems department.

QUESTION BOX



If you have questions on company policy, write the Editor, Nuclear Division News (or telephone your question in, either to the Editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

QUESTION: Despite poor, inadequate parking, employees at K-25 are now being badgered with Company "parking tickets" and the threat of reprimands for repeated parking violations. The parking problem isn't the fault of employees. Why not get more adequate parking facilities? This would be far better than threats and intimidation.

ANSWER: It is true that because of the rapid growth in employment at the K-25 Plant there have been periods of inconvenience to employees due to inadequate parking facilities. The Company has studied the parking situation and has attempted to solve the problem by additional and expanded parking lots and by redesigning the parking arrangements to increase the capacity of the existing lots. K-25 management recognizes that some isolated parking lot problem areas still exist. These areas are presently receiving the attention of the Plant Traffic Committee, and solutions will be found.

Parking regulations are established, not for the sake of harrassment, but to ensure that the availability and convenience of parking of one employee is not abused by another employee. Enforcement of these regulations is the responsibility of the Company. We believe the majority of employees expect the Company to enforce the rules to control inconsiderate parking practices by a small number of employees. K-25 Management intends to be reasonable in the enforcement of the rules, and whenever extenuating circumstances exist, they will be taken into consideration.

QUESTION: Can you provide clarification on "compensatory time off" for monthly-salaried personnel? I realize that providing such time off in cases where the person has worked unusual amounts of overtime is discretionary, but I am concerned with how much time, when granted, is reflected in time-accounting and/or personnel records. It appears that some divisions charge such time as "personal leave." This is patently unfair to the employee, in that a review of his attendance record by Carbide management or a potential new employer at a later time would thus show "excessive personal leave time," when in fact the employee might not have taken any real "personal leave."

ANSWER: The problem you point out has been under study for some time. It has now been determined that future "compensatory time off"

for monthly-salaried employees will be charged in a manner to differentiate it from personal leave.

QUESTION: Why has the Company slowed down so much on the regular physical reexaminations? It's been particularly bad at the Oak Ridge Gaseous Diffusion Plant.

ANSWER: It is our policy to maintain a regular schedule of periodic health examinations. It is so that we have fallen behind in the past year. The regular schedule calls for an employee over 45 years of age to have a periodic examination every 18 months. Employees under 45 years of age have a periodic examination every 3 years with an interim examination on an 18-month schedule.

Due to its very heavy hiring schedule in 1974, ORGDP discontinued most periodic physicals for a period of many months. With the medical staff they now have, periodics are being stepped up and the regular schedule should be maintained.

We are presently short one physician at ORNL and are looking for an additional physician at Paducah. When these two vacancies are filled, we should be able to maintain the regular schedule.

QUESTION: I realize that overtime is sometimes necessary and I am willing to do my share. What I want to know is if I am asked to work overtime and refuse, do I have to submit a written notice explaining why I would not work? I know it is required to sign a card "yes" or "no," but I feel it should stop at "no."

ANSWER: There may be some departments in the Nuclear Division where employees are asked to indicate in writing whether or not they can work overtime. We are not aware of any case where employees are required to submit an explanation in writing of why they refuse to work overtime. Under normal circumstances, we do not feel that such a requirement would be proper.

QUESTION: How about setting aside a small area of the paper for looking back 10, 20, or 30 years? It might be interesting, especially since some of the activities like touch football, fast-pitch softball, and others are gone.

ANSWER: Good suggestion. As space allows, the News staff plans to review old files and papers and come up with an occasional column as you suggest.

QUESTION: UCC-ND Standard Practice Procedure D-1-5, "Jury Duty", states that "A nonexempt salaried employee who has been excused from work for jury duty is paid the difference between his basic earnings and any documented fees received from the court." (Section D-1-5, 2.a). On the other hand, D-1-7,

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Calvert, Levenhagen assume new posts in ORGDP changes

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PH75-160



O. Lynn Calvert

Two major appointments have been announced at the Oak Ridge Gaseous Diffusion Plant.

O. Lynn Calvert has been named superintendent of the chemical operations and SS materials handling department in the Operations Division.



Charles R. Levenhagen

He joined Union Carbide in 1966 as a computer programmer. Prior to that time, he served in the U. S. Marine Corps, worked for the Federal Bureau of Investigation, and for Tyson Belzer and Associates. He has served in several Employee Relations Division functions, most recently as employment supervisor.

A native of Pineville, Ky., Calvert is a graduate of American University.

He lives with his wife, Eileen, at 114 Everest Circle, Oak Ridge, with their two sons.

Charles R. Levenhagen has been named superintendent of the human resources department in Industrial Relations. This new group will encompass manpower development and training as well as employment functions.

Levenhagen joined the ORGDP staff in 1963 after working three years with UCC's Cryogenics Products and the Molecular Sieve Plant. He previously worked for Speedway Research and Development Laboratories.

A native of Vincennes, Ind., he holds a B.S. degree from Indiana University and has done graduate work at Butler University.

He lives with his wife, Shirley, at 1066 West Outer Drive, Oak Ridge. They have two sons.

COMPANY Service

20 25 30

PADUCAH 20 YEARS

Harold E. Price.

Y-12 PLANT 30 YEARS

Jeanette A. McCown, chemical services; Warren B. Tyree, general can fabrication shop; Elgin H. Bass, building services; Mattie E. Anderson, production assay; Doyle B. Williams, plant protection department; Vernoy R. Sexton, Beta 2 chemistry; Andy P. Phillips, process maintenance; and James W. Hamby, Materials and Services.

25 YEARS

Ralph R. Hartman, Lethan L. Hamlin, Arville J. Crawford, Beecher B. Morrow, Ernest V. Larmoyeux, James V. Haggard and Thurman W. Noe.

20 YEARS

Joseph W. McNeal, Murrell R. Whaley, Fred N. McLain, Janice G. Midkiff, John O. Brown Jr., and John Lewis Jr.

ORGDP 30 YEARS

Ben R. Ritchey, SS material handling; J. T. Kilby, building maintenance department; Charles E. Sartin, Oak Ridge area electricity distribution; James W. Reed, barrier TIA manufacturing; Findley Fowler, shop services department; Charles H. Denton, building maintenance department; Jesse Tennyson, William C. Chapman, Glenn Lott and Tandy O. Downs, all of U-235 separation department; and Bud B. Plemens, stores department.

25 YEARS

Edna J. Hicks, Lola C. Byrd, John R. Cruse and John A. Sharpe.

20 YEARS

Walter R. Templin.

SAVINGS PLAN-PERSONAL INVESTMENT ACCOUNT

Recent unit values:

	Fixed Income Fund	UCC Stock Fund	Equity Investment Fund
1975			
Mar.	11.27	54.11	7.64
Apr.	11.35	58.52	8.04
May	11.43	63.83	8.46
June	11.50	59.57	8.70

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 8.55% for 1975. Union Carbide stock values are the average cost of stock purchases during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. Dividing the total value by the number of units in the fund establishes the month's unit value - and the price at which new units are added that month.

A salute to women in the Nuclear Division

Editor's note: The Nuclear Division News is proud to salute the women employees of the Nuclear Division especially during this, International Women's Year.

Nuclear Division women have diverse backgrounds; educational levels; and professional, civic, political and social interest. Many are wives and mothers, in addition to being important members of the Division's work force. Although we could not feature every woman, we have selected a few who represent jobs on various levels throughout the Division.

Christine Travaglini, who was recently appointed manager of Auditing, is working toward her master's degree in business administration at UT. A former secretary in Thermonuclear Division, Mrs. Travaglini points to the Education Assistance Program as the "most important thing Carbide offers its employees." Her husband, Arthur, works in General Accounting. They have three children.



Christine Travaglini, General Staff

Lynda Lewis' job is a little different from that of the traditional library specialist. One of her duties at ORNL is to operate an AEC remote console, an information retrieval system. A native of Indianola, Miss., Mrs. Lewis holds membership in several professional organizations. Her husband, James, works for TVA. They reside in Knoxville.

Edwena Dunbar is an associate maintenance engineer at ORDGP. She has participated in the Nuclear



Lynda Lewis, ORNL

Division's college recruitment program and is currently studying at UT for her second degree in engineering. She joined Carbide in 1970, after working several summers as an assistant engineer in ERDA's Savannah River Plant in her home town (Aiken, S.C.).

A chemist in Y-12's Product Certification Division, Julie Dorsey is very enthusiastic about her work; she operates a nuclear magnetic resonance spectrometer with a magnet weighing five tons. Mrs. Dorsey joined the staff in 1966 and has an M.S. degree in chemistry from UT. She is active in various organizations, and will serve as her division's United Fund drive chairman this year. She and George, her husband, and their three children reside in Knox County.



Jean Tarwater, ORGDP

Dr. Jean Tarwater practiced in India for two years and in New Tazewell for 13 years before joining the ORDGP medical staff in 1973. A native of Maryville, Dr. Tarwater is active in several medical associations. She enjoys music and gardening and resides in Knox County.



Edwena Dunbar, ORGDP



Julie Dorsey, Y-12

Helen Henson uses an electron microscope in her work as an associate development engineer at ORDGP. She worked at the Laboratory for more than six years, and has completed course work for her master's degree in metallurgical engineering at UT. Mrs. Henson and her husband, Tommy (a Lab employee) have two children and are expecting a third next month.



Helen Henson, ORGDP

ORNL's J. Carver attends women's year conference

Jeanne Carver, Health Physics Division at the Laboratory, attended the International Women's Year Conference held in Mexico City, June 19-July 2, 1975.

Mrs. Carver described the Conference as "interesting and very educational." She found that "what is relevant to women" differs from country to country. Most women from the industrialized countries gave top priority to bias against women in careers and politics; while women from the "Third World" or economically underdeveloped countries, stressed such issues as education or job training, things which are often denied to them because of religious or cultural taboos.

The Conference took the general theme of International Women's Year: Equality, development and peace. More than 5,000 people (women and men) attended the Tribune—a conference composed of representatives of various organiza-

tions and/or movements. Approximately 1,300 attended the formal sessions as representatives of governments throughout the world.

Objectives of the conference were: to promote equality between men and women; to ensure the full integration of women in the total development effort; and to recognize the importance of women's increasing contributions to the development of friendly relations among states and the strengthening of world peace.

International Women's Year 1975



Eleanor Redmond, General Staff

Eleanor Redmond is a computer operator (EDP technician) in Computer Sciences at the Laboratory. A native of Sweetwater, she has been with the Nuclear Division since 1969. She is involved in several civic organizations and resides with her husband, Robert, in Oak Ridge.

her granddaughter, Shannon Lee. Her husband, Jim, also works at PGDP.



Susie A. Collier, Y-12

Susie Collier is an assembler at the Y-12 Plant. A native of Kingston, she joined the staff in 1970. Mrs. Collier is a graduate of Campbell High School and has received on-the-job training at Y-12. She is six feet, one inch tall, and enjoys playing basketball with her sons, Quintis and Michael.

Mary Nelson, materials foreman at the Paducah Gaseous Diffusion Plant, joined the staff in 1951 in Purchasing. A native of South Illinois, she is an active member of the American Business Women's Association. Mrs. Nelson's favorite topic of discussion is



E. Youngblood and Mary Nelson, Paducah



Betty Lester, Paducah

Betty Lester is executive secretary at the Paducah Gaseous Diffusion Plant. She is a graduate of Draughon's Business College and is a certified professional secretary. Active in several organizations, Mrs. Lester is currently chapter president of the National Secretaries Association in Paducah. She joined the staff in 1957, and resides with her husband, Sid, in Paducah.

Beverly Ausmus, an environmental research associate, joined the Laboratory staff in 1973. She has her Ph.D. degree in ecology and taught at Carson Newman College for one year. Miss Ausmus is a member of several ecological and conservation societies, and is an avid sailor.

What working women want

by Joanne Gailar

ORNL Affirmative Action Coordinator

What do working women want — especially those women who work in the Nuclear Division? When the Division includes women with such a wide diversity of responsibilities and personalities, is it really possible to identify what they want?

After listening to many women and hearing the same story again and again, I say, yes it is. Moreover, when I meet with women of the ERDA-sponsored installations, whether they be from Berkeley, Los Alamos, New York, or Ames, I find that they want the same things as ORNL women. Los Alamos secretaries feel boxed in, with no place to go; Ames professional women resent the all-male organization chart of top managers; California women technicians covet the broad variety of assignments given the men technicians. So similar are the complaints and aspirations of women throughout the country that we can paraphrase the old French saying, "The more things change, the more they are the same," to "The more the geography changes, the more things are the same."

Broadly speaking, women want two things: a larger share of the action and a share of the larger action. They want to see clear career patterns established so that they can know where to go and how to get there. They want to see women represented throughout all levels of the organization and with the same privileges as men at each level.

Above all, they want to see an end to male sexist attitudes, which are reflected in the language, starting with "manpower" assessments which lead to finding the best "man" for the job and result in promoting the best "man" to a better job and selecting the best "man" to head a committee and receive awards. These are things that women in all job categories agree on.

Wants of specific groups

More specifically, secretaries and other women in administrative support jobs seek recognition and job enlargement. They would like more opportunity to voice their ideas and aspirations to their bosses, to attend installation-wide meetings with the

professionals, to take advantage of both in-house and outside opportunities for training and development with the sanction of their supervisors.

They would like the chance to use all of their skills in their jobs — to be given as many non-routine responsibilities and assignments as possible; and when, by performing well, they free their bosses for the purely supervisory and technical aspects of the job, they would like to receive respect and recognition for a job well done. Instead of being regarded as "the girls," the bringers-in of "goodies" to office parties, they would like to be thought of as career women who perform a valuable service and are worthy of sharing the more work-related "goodies."

Women technicians want the chance to increase their versatility. They don't want to be relegated to doing just one thing, such as analyzing samples. They want to try their hands at a variety of things, to share the broad field experiences with the men techs so that they too can be eligible for the bigger rewards and legitimately avoid being treated as "errand girls" by their supervisors.

Professional women, who by the nature of the jobs are closer to the upward rungs of the ladder, would like more opportunity to share these rungs with aspiring male professionals. Some of these women would welcome the chance to try their management skills in the really top jobs, such as division heads or associate directors. Others have little interest in management, but would like to have the chance to do first-rate research, as well as the opportunity to receive recognition for meritorious work performance by being selected to conduct seminars, to attend prestigious meetings, and to have their research publicized.

General employment goals

These are the wants of specific groups of women. More general wants include fair interview procedures for prospective women employees and willingness on the part of some men in positions of authority to serve as "mentors" for women, setting up traineeships through which women may learn valuable management skills. This would enable these women, in turn, to become future mentors to other women.

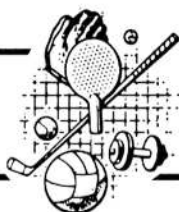
Women also want more openness about employment opportunities. They want to know not only what general areas of advancement exist for them, but also specific job descriptions and the specific skills required to fill such jobs.

These, then, are the principal wants not only of Laboratory women, but also, from what I see, the wants of working women everywhere. To reiterate and to summarize, working women at the Laboratory, at the other installations of the Nuclear Division, and throughout the U.S., want a larger share of the action and a share of the larger action.



Beverly Ausmus, ORNL

RECREATIONOTES



DOLL GOES FOR A SWIM — Part of the swimming program at the Paducah Plant includes this little one enjoying a cool splash in the Bob Noble Park Swimming Pool. The highly successful program is now in full swing.

PADUCAH SWIM PROGRAM

The Paducah Plant swim program is in full swing. ...250 employees, spouses and children have enrolled in categories which include stroke development, beginners 6-10, advanced beginners 6-10, beginners 11-15, advanced beginners 11-15, beginners 16 and over, advanced beginners 16 and over and the most popular of all "Moms and Tots".

Elmer Breidert, Dan Stitt and Tom Brazzel, qualified instructors, supervise the program using instructions that they have developed themselves in most cases.

The program operates from 9 to 10:30 a.m. each Saturday at the Bob Noble Park Swimming Pool. After the instruction period, recreational (free) swimming is from 10:30 until 12 noon.

BOWLING TIME AGAIN!

It hardly seems possible, but bowling time is approaching. Leagues should have organizational meetings as soon as possible to determine the number of teams in each league.

Bowling fees this year will be 70 cents per line, and the Recreation Department will pay sanction fees for all league bowlers.

Assistance or information on forming teams, or attempting to get on a team, can be obtained from the Recreation Office, extension 3-5833.

PADUCAH GOLF TOURNAMENT

The Paducah Plant golf committee has announced winners for the first annual handicap golf tournament. A total of 84 competitors participated in the Paxton Park four-flight contest.

Allen Cox, husband of Sandra, was declared the scratch winner and Arvin Gorline the handicap top golfer.

In the first flight it was Waldo Golliher, Dave Barclay, Phil Brown and Jim Freeman (tie), and Dan Garrott.

In the second flight Archie Miler, Bill Longton, B. T. Brooks, George Williamson and Earl Richardson (tie) were declared winners.

Taking the third flight were Max Sachranoski, Steve Sevenski and Betty Lester (tie).

In the four flight winners were Dave Wallace, Jack Hanckey, Mike Flood and Gray McManus tying with Frank Baker.

Interest in the match makes it a sure bet for next year.

PRESIDENTIAL SPORTS AWARD

John H. "Tudor" Boyd Jr., Oak Ridge Gaseous Diffusion Plant, is the latest recipient of a Presidential Sports Award. Boyd displayed his prowess on the water skis.

OAK RIDGE MASTERS SWIM CLUB WINS BID FOR A.A.U. SWIM MEET

Recently, the Oak Ridge Masters Swim Club successfully bid for the sponsorship of the National A.A.U. Men's and Women's Long Course Masters Swimming Championships to be held August 29, 30 and 31. This spectacular event will bring together approximately 600 of the best masters swimmers from the U.S. and Canada to compete in the most prestigious masters swim meet ever held in the Southwest. The championships will be held at The University of Tennessee Aquatic Center, which houses the most outstanding swimming facilities in the area. The event is open to all A.A.U. athletes possessing either a regular A.A.U. card or A.A.U. Masters registration card, and who are 25 years old or older by August 29, 1975. The meet director is John P. Crews, local physician, and the meet referee is George Job.

ALL CARBIDE BOWLING

The Oops team stands atop the league in All Carbide Bowling, one and one-half points away from the Pinsetters. Tillie Plaza scored a 621 handicap series recently; and James Stule put a 706 on the boards (531 and 634 scratch scores consecutively!).

ORGDP GOLF TOURNEY

Bennie Crass took the Whittle Springs tournament in July for the Oak Ridge Gaseous Diffusion Plant duffers, with a one-over-par 73. He was followed by D. C. Lannom with a 75.

J. A. Duff capped handicap honors with a 76, and O. D. Boyd carded an 80.

C. Ferguson, W. J. Moore and H. Creswell all counted 11 pars.

Jim Edwards took the second division with an 81, tying with John Shelton. R. O. Meyers placed second with 82. Handicap lows went to Bill Schwab, 83; and Wayne Groppe, 84, and H. H. King, also with 84.

Seven pars were tallied by C. L. Richeson, D. M. Papke, and W. S. Fort.

J. Ballard won third division honors with an 85, followed by Glen Nelson with 87. Bob Hurst and V. H. Houston came into handicap honors with 94 and 88 each.

Five pars were listed by Burl White, Norm Teasley and Walt Goodwin.

Crews and Job have been active in the local organization since 1972. Many Nuclear Division employees are now counted as active members of the organization, and some are national record holders.

Entry applications are still being accepted and some support jobs are still open for those wishing to participate. Call George Job, extension 3-7911, for further details.

Y-12 GOLF TOURNAMENT

John Baker's 74 was tops for Y-12 golfers at Southwest Point. Charles Baxter placed second with a 76. Handicap lows went to Joe Pryson, 79; and Iver Jeter, 83.

Dan Rowan and W. A. Rutherford counted nine pars; Jim Vance, Don Branson and Virgil Lovett, eight.

Second flight laurels were gleaned by G.A. Ware, 83; and Fred Marshall, 85 and H. Hensley, 85.

Bill Briscoe's 85 was low handicap score in the second division; while Hugh Henderson came in with 88.

Doug Roberts counted 10 pars.

Tom Pappas turned in low cards for the third flight, scoring an 89. Bob Forseman and Paul Shell carded 93. Handicap honors went to J. T. McCormic, 89; and Russell Jackson and E. H. Upton, each with 100.

J. W. Hasley counted four pars; Ron Tood, A. Bryant and Jack Smiddy, three.

ORNL GOLF TOURNAMENT

Wallace Hills golfers from the Laboratory saw W. Martin take a fine score of 67 to win the July laurels, while C. Brown's 73 was second. In handicap scoring it was H. Butler, 76, and D. Kington, 76.

A total of 11 pars were counted by C. Coley, J. Meece, D. Raymer, R. Ross and W. Schill.

Second flight lows were registered by H. Bryson, 77, and J. Holt, 82, as Fred Wetzel also scored an 82.

Handicap winners were J. Amburgey, 80; and R. Toucey, 82.

H. Klaus and R. Pawel stroked 10 pars.

In the third flight it was C. Hunley, 84; J. Anderson and C. Thomas, 86 each. Handicap lows were taken by D. Wolfenbarger, 89; and E. Trowbridge, 92.

T. Lundy counted eight pars.



SUMMER FUN — All ages enjoyed the picnic staged at the Clark Center Recreation Park recently. The Finance and Materials Division and Employee Relations Division at the Oak Ridge Gaseous Diffusion Plant pooled resources for the big event.

Tee-Off Time Application for August 23

(Check Appropriate Plant)

- ☐ Y-12 — Wallace Hills
- ☐ Laboratory — Southwest Point
- ☐ ORDGP — Quail Creek Country Club

LEADER _____

Phone _____

Bldg. _____

Time Preferred _____

COMPLETE AND RETURN TO YOUR RECREATION OFFICE

Entries must be received prior to drawing on August 20, 2 p.m.

ORDGP — Building K1001—C-Wing—MS 122

Y-12 — Building 9711-5 ORNL — Building 2518

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times.

Alcohol and cancer

By T. A. Lincoln, M.D.

The toxic effect of alcohol on the brain and liver is generally well known. The effect on heart muscle is less well known. Probably least appreciated by the general public is the role alcohol plays in cancer of the mouth, larynx, tongue, oropharynx, esophagus and liver.

Before discussing the relationship of alcohol to cancer, a definition of excessive alcohol intake is necessary to help a person who drinks know where he stands. Moderate and excessive drinking mean different things to different people. Some quantification is necessary.

Dr. Morris E. Chafetz, Director of the National Institute on Alcohol Abuse and Alcoholism, says that a moderate drinker would consume no more than three ounces of 100-proof



bourbon or three 12-ounce cans of beer per day. Since drinking more than half a pint of 86-proof whiskey or its equivalent (about three martinis or four highballs) per day can cause physical damage to the organs mentioned above, it has to be considered excessive. Susceptibility varies and a few people can be damaged by a lesser amount, but few can avoid damage at the higher level if continued for many years. The above amounts are for an average sized man of about 5 feet 11 inches tall and weighing about 165 pounds naked. As one attempts to classify himself, he should only consider the ideal weight for his height. He cannot use his "beer belly" to justify greater consumption. Excess fat does not offer any additional protection.

Amount consumed is key

The amount of overt intoxication produced by the amount of alcohol consumed has little or nothing to do with its causing physical damage. Naturally, persons who consume enough alcohol to be obviously drunk run a greater risk, since the amount required to produce this effect every day may be remarkably large. It often is over one fifth of whiskey per day. As has been found in France, people who consume a bottle of wine per day may appear sober and not be considered alcoholic. They may be responsible business and family men, but they have a high incidence of cirrhosis and other physical effects of alcohol.

What about binge drinking? There probably is a greater physical risk from continuous or everyday drinking than from occasional party excesses. Rest days help susceptible organs recover. Prolonged binges, however, where consumption is sufficient to cause continuous intoxication, take their toll.

What about type? Concentrated alcoholic beverages are more hazardous. Straight whiskey, gin and vodka "on the rocks" are more dangerous than diluted drinks.

Alcohol taken with food is less hazardous.

About 70 percent of patients with primary cancer of the liver have cirrhosis. Virtually all hepatomas, one of the primary cancers of the liver, are associated with alcoholic cirrhosis. The evidence of an association of alcohol consumption and cancer of the esophagus is complicated by the usual coexistence of smoking. In several studies, a significant association was found for men but not for women, and it was not associated with the quantity smoked. The fact that there has been no increase in cancer of the esophagus in the past 50 years in spite of a sixty-fold increase in cigarette consumption tends to support the basic role of alcohol. Surprising as it may seem, there has been remarkably little change in male alcohol consumption during this time period.

Association with smoking

In spite of the above problems in interpreting epidemiological data, Dr. Ernest L. Wynder, then at the Sloan-Kettering Institute for Cancer Research in New York, found that the risk of cancer of the esophagus was 25 times greater for the drinker than for the nondrinker when tobacco consumption was held constant. He also now says that the incidence of esophageal cancer would be reduced by 80 percent if no one drank or smoked.

Drs. Kenneth Rothman and Andrew Keller, from the Harvard School of Public Health and the Veterans Administration, studied the effect of joint exposure to alcohol and tobacco on the risk of cancer of the mouth and pharynx. Using a risk of one for a teetotaler and non-smoker, a person who smokes 20 to 30 cigarettes a day but drank no alcohol would have a risk of 1.43, but if he also drank more than 1.5 ounces alcohol per day, the risk rose to 9.59. A person who drank that much alcohol but did not smoke had a risk of 2.33.

The Bantus, living in East London during the late 1950's, had a high incidence of esophageal cancer. They drank large quantities of cidiviki, which they brewed in old asphalt drums using baker's yeast, crude carbide, a well-known brand liquid metal polish, and fruit unfit for sale. You may laugh at such a concoction, but hundreds of martinis spread over many years apparently have a similar effect.

The eating or drinking of hot food or drink seems to predispose a person to cancer of the esophagus. Heavy alcohol consumption seems to cause a mild local anesthetic effect which allows extremely hot food to be swallowed.

The heavy drinker runs an appreciable risk of cancer in addition to all his other woes. The incorrigible alcoholic is to be pitied. The social drinker who is gradually drifting into a heavy drinking pattern should consider its effect on his physical health, even if he does not yet perceive its damage to his social well-being.

Ten named to new positions in Paducah Plant promotions

Ten new assignments have been announced for personnel at the Paducah Gaseous Diffusion Plant.

Carol F. Alexander has been named a process foreman in the Power, Utilities and Chemical Operations Division. A native of Puryear, Tenn., he joined Union Carbide in 1953, after serving in the U. S. Army. He and his wife, the former Ruth Hopper, live at Route 4, Kevil.

William O. Boren has also been named a process foreman. He worked with the J. C. Penney Company before joining Union Carbide 23 years ago. He was born in Mound City, Ill. Mrs. Boren is the former Norma Jean Jones, and they live at 252 Iroquois Avenue, Paducah.

William D. Brewer has been promoted to a senior inspector in Plant Engineering and Inspection. Born in McCracken County, he has been at the Paducah Plant seven years. Prior to that he worked with the Modine Manufacturing Company. Brewer and his wife, the former Frances Hinners, live at Route 1, Moore Road, Paducah. They have two children, Devin and Stacey.

Charles E. Brown has also been named a senior inspector. A native of Decatur, Ala., he has been with Union Carbide 23 years. Prior to that he worked with McDonnell Aircraft, Consolidated-Vultee, Aluminum Company of America and the Illinois Central Railroad. Mrs. Brown is the former Arra Nell Beasley, and they live at Route 11, Phipps Street, Lone Oak.

Charles H. Brown has been named a foreman in electrical maintenance. A native of Unity, Ill., he has been with UCC 23 years. He worked with Caterpillar Tractor Company before coming to the Paducah Plant as a chemical operator. Mrs. Brown is the former Jean Mahan, and they have three children, Charlotte, Rodney and Valerie. The couple lives at 128 South Reader, Mounds, Ill.

Bobb J. Cain has been named an instrument foreman in Fabrication Maintenance. Born in Calloway County, Ky., he attended Murray State University, and served in the U. S. Navy, before joining UCC 23 years ago. His wife is the former Marilyn Ann Smith, and they live at 1318 Piedmont Road, Paducah.

Charles E. Carrigan has been named a lubrication foreman in the Maintenance Division. Born in Melber, Ky., he has also been with Carbide 23 years. He worked with the Brooks Bus Line before that. Mrs. Carrigan is the former Linda Baldree.

Roy W. Collins is a new process foreman in the Power, Utilities and Chemical Operations Division. He was born in Union County, Ky., and has been with UCC 23 years. His wife is the former Marjorie Estelle Hailey, and they live at 3053 Old Mayfield Road, Paducah.

Herman L. Connor has been promoted to a foreman in the Maintenance Division. He was born in Paducah, and has been with Union Carbide more than 23 years. Before joining UCC, he served in the U. S. Air Force and worked with the Illinois Central Railroad. Mrs. Connor is the former Nell M. Metcalf. They live at 2123 Ohio Street, Paducah.

Charles C. Eaves is a new inspector in quality control. He is a native of Macon, Ga., and has been with Union Carbide three years. He lives at 316 Harahan Boulevard, Paducah.



C. F. Alexander

W. O. Boren



W. D. Brewer

C. E. Brown



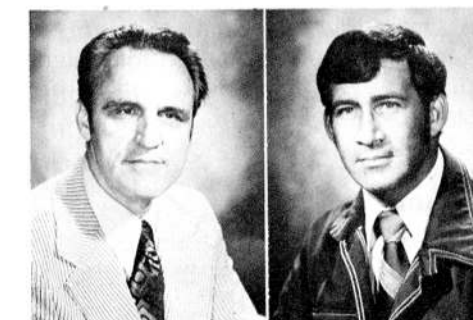
C. H. Brown

B. J. Cain



C. E. Carrigan

R. W. Collins



H. L. Connor

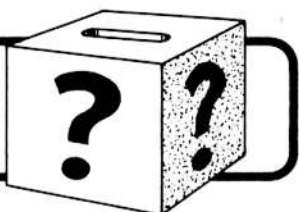
C. C. Eaves

\$47 million shown in toll enrichment

Approximately \$47 million in toll enrichment sales were reported at the Oak Ridge Gaseous Diffusion Plant during the second quarter of 1975, bringing the total sales for the year to \$92 million. This compares to \$75 million in sales reported during the first half of 1974.

During the second quarter of 1975, more than 530,000 pounds of enriched uranium were shipped for use in nuclear reactors in Belgium, Japan and West Germany, and in the states of Alabama, Florida, Illinois, North Carolina, Pennsylvania and Wisconsin.

QUESTION BOX



(Continued from page 3)

"Military Training and Emergency Duty," provides that "A salaried employee if called for training or emergency duty is eligible to receive his full basic salary from the Company in addition to any remuneration received from the Government." (Section D-1-7, 4.2).

Why does this difference in pay policy exist? In each situation the individual is fulfilling a patriotic duty. Surely the Company supports its employees' serving as jurors just as fully as it supports their being in a military reserve unit. Shouldn't the nonexempt person on jury duty be able to keep his or her salary in addition to the jury duty pay even as the nonexempt person on military training gets to keep his or her salary and military pay?

ANSWER: At the time the military leave policy was formulated, we were about to enter World War II and it was, in fact, considered much more patriotic to enter the military service than to serve on a jury. Also, at that time pay for military service was very low, so the extra money involved wasn't very much.

We recognize that under today's circumstances the two policies are inconsistent. There is really no reason why an employee should be paid more for periods when he isn't doing his regular job than when he's at work. In both instances, it would seem, an employee should merely be protected against loss of pay, rather than receiving full salary as well as military and/or jury duty payments. This entire matter is under review.

Bryan Cook, Laboratory foreman, dies July 12

Bryan Cook, a machining foreman in Oak Ridge National Laboratory's Plant and Equipment Division, died July 12. He had been with the Laboratory since April, 1956.

Mr. Cook was a native of Union County and a member of Heritage United Methodist Church.

He is survived by his wife, Mrs. Maggie Ousley Cook, Route 4, Topside Road, Louisville; five daughters, Mrs. Johanna Parkings and Mrs. Carolyn McCarter of Morristown, Mrs. Roselyn Edwards of Ft. Walton Beach, Fla., Mrs. Barbara Self of Nashville, and Mrs. Brenda Rogers of Louisville; a son, Gary Len Cook of Maryville; three stepdaughters, Mrs. Myra LaFollette, Mrs. Delight Job and Bobbie Ousley, all of Louisville; 11 grandchildren; his parents, Mr. and Mrs. Emerson Cook of Maryville; six sisters, and three brothers.

Services were held July 13 at Berry Funeral Home Chapel with the Rev. Charles Lockerby and the Rev. Thomas C. Daily officiating. Burial was in Sherwood Memorial Gardens.



Mr. Cook

QUESTION: An employee is on Leave of Absence for Maternity Leave and she is penalized twice by the Company. She is not pregnant after she delivers, she is on sick time as any other type of recovery from post-operative situations. So, why is it necessary for it to be called a Leave? Why can't she have sick time for her recovery process. Then after she returns to work, normally the routine six weeks is sufficient unless complications develop, she is penalized again by withholding her review for merit until after the time lapse for being out on Leave.

ANSWER: Whether or not a pregnancy is an illness, or at least should be so considered, is a matter of controversy. The issue is now under court review. The position of most employers is that it is not, in fact, an illness. It is expected that the case will be heard in the Supreme Court. Naturally, we will comply with the findings of the Court.

Next Issue

The next issue will be dated August 21. The deadline is August 13.

Seismograph

(Continued from page 1)

which travel at specific velocities, the distance to the epicenter can be calculated by identifying the different wave groups and determining their times of arrival.

A check of the three short-period seismograms tells whether the earth moved vertically, horizontally east-west, or horizontally north-south. From this information, the approximate direction to the epicenter can be deduced.

By measuring the length of the side-to-side sweeps of the pen strokes across the seismograms (using an ordinary metric ruler) and dividing by the gain factor, the actual distance the earth was moving back-and-forth can be determined. This is the amplitude.

Scale described

The Richter magnitude can now be calculated. The magnitude of an earthquake is the logarithm of the corrected amplitude. Thus, the Richter scale is a logarithmic scale wherein each unit of magnitude represents an earthquake approximately 20 times more powerful than the next lower unit of the scale.

The Richter scale often is erroneously described as a scale of from 1 to 10, implying that a quake measuring 6 would be twice as strong as one measuring 3. A magnitude 6 earthquake actually indicates that about 8,000 times more energy was released than for one that was rated 3 (multiply 20 times 20 times 20). Although the Richter scale is completely open-ended, no known earthquake has ever topped 8.5.

Special CPS classes to begin September 8

Special courses in preparation for the Certified Professional Secretary Examination are scheduled to begin on September 8.

Under the sponsorship of the Oak Ridge Chapter of the National Secretaries Association (International), the following courses will be offered: *Business Law*, September 8 through October 20, Don Roe, instructor; *Accounting*, October 22 through December 17, Carl Butcher, instructor; *Economics*, January 5, 1976, through February 12, 1976, Jan Wing, instructor; *Office Procedures*, February 16, 1976, through March 22, 1976, Doris Simpson, instructor; *In Basket*, March 25, 1976, thru April 22, 1976, Doris Simpson, instructor.

All classes will be held at the Oak Ridge High School from 6:30 to 9:30 p.m., and are approved under the Carbide Educational Assistance Program for partial reimbursement upon satisfactory completion of the work.

Membership in the NSA is not a prerequisite for taking the CPS Examination. The above-scheduled classes not only are preparation for CPS testing, but also provide valuable progress in a program of self-improvement for anyone in the secretarial field.

Registration forms may be obtained from Mabel Tyer, Building 9704-2, Y-12 Plant, telephone 3-7121.

Spot bid sale

A spot bid sale is now in progress on used government-owned office equipment and vehicles. All the merchandise may be inspected from 8:15 a.m. to 4 p.m. through August 12, excluding Sundays. It is located at the Oak Ridge Gaseous Diffusion Plant, Power House Area, Building K-722, off state highway 58, Oak Ridge.

The sale will begin at 9 a.m. August 13. Additional information may be obtained from D. R. McCammon, extension 3-4601.

Group Insurance open enrollment

Employees not enrolled in our Group Life Insurance Plans, either for Basic or for Supplemental coverage, will have a "one-time" opportunity to enroll, if they now wish to do so, during the month of August.

If for any reason you have declined coverage or dropped part of it in the past, you may enroll now with no health or physical examination required. You may enroll in both the Basic Plan and the Supplemental Plan, even if you have been denied insurance previously.

Application for enrollment must be made no later than August 31, and coverage is effective September 1. Payroll deductions for your share of the premium begins with the first full pay period in which the insurance is in force.

This opportunity is good only through August 31, 1975.

Additional information may be obtained by contacting the benefit plans office in your installation.

RIDES-RIDES-RIDES

Y-12 PLANT

RIDER from North Knoxville, Whittle Springs Road, Washington Pike area, via Clinton Highway, to East, North or Central Portal. Jim Baker, plant phone 3-5935, home Knoxville 637-1769.

CAR POOL MEMBERS wanted from Cumberland Estates area, Knoxville, to North or East Portal, straight day. S. T. Benton, plant phone 3-5615, home Knoxville 588-2540.

LABORATORY

JOIN CARPOOL from Cedar Bluff area (Gulf Park) to East Portal, 8:00 - 4:30 shift or earlier. Joe Pace, plant phone 3-6022, home phone 690-0325.

RIDE, JOIN CAR POOL or will take RIDERS from Michigan-Maiden Lane area, Oak Ridge to East Portal, 8 - 4:30 shift. John Alexander, plant phone 3-1679, home phone 482-5359.



UNION CARBIDE CORPORATION

NUCLEAR DIVISION
P. O. BOX Y, OAK RIDGE, TENNESSEE 37830

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